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the receiver channel estimator, for storing the modified channel response estimate for subsequent use in detecting operations performed on the traffic communication channel.

19. The communication system of claim 16 wherein:

- (a) the transmitter modulator comprises means for using a distinct 128 bit length Walsh code as the spreading code to partition an access channel slot into a particular subchannel in which low rate reference coded access channel transmission can be communicated, the distinct 128 bit length Walsh code being orthogonal to the remaining 63 other 64 bit length Walsh codes of a Hadamard matrix; and
- (b) receiver demodulator comprises means for using the same distinct 128 bit length Walsh code as the spreading code to despread the particular subchannel of the access channel slot.

20. The communication system of claim 16 wherein the receiver detector comprises means for generating an estimated data bit by utilizing maximum likelihood decoding techniques to derive the estimated data bit from the estimated data symbol.

21. The communication system of claim 16 wherein the communication channel is selected from the group consisting of an electronic data bus, radio communication link, wireline, optical fiber link, and satellite link.

22. A method of communication in a communication system comprising the steps of:

- (a) inserting reference symbols into a stream of access channel message data symbols to form a reference coded stream of access channel message data symbols;
- (b) appending the reference coded stream of access channel message data symbols onto the end of a synchronization message to form a reference coded access channel transmission; and
- (c) preparing the reference coded access channel transmission for transmission over a communication channel by spreading the reference coded access channel transmission with a spreading code to form a spread reference coded access channel transmission prior to transmission over the communication channel.

23. The method of claim 22 wherein the spreading operations of the preparing step are substantially similar to spreading operations of another preparing step utilized in communicating over a traffic communication channel of the communication system.

24. The method of claim 22 wherein the preparing step comprises using a Walsh code as the spreading code to partition an access channel slot into at least two subchannels in which different reference coded access channel transmissions can be communicated.

25. The method of claim 24 wherein the preparing step comprises using two distinct 128 bit length Walsh codes as

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the spreading codes to partition the access channel slot into two subchannels, the two 128 bit length Walsh codes being orthogonal to the remaining 63 other 64 bit length Walsh codes of a Hadamard matrix.

26. The method of claim 22 further comprising the step of transmitting the spread reference coded access channel transmission over the communication channel.

27. A method of communication in a communication system comprising the steps of:

- (a) correlating a known synchronization sequence with a received communication signal to generate a correlation peak when a synchronization message is present in the received communication signal;
- (b) determining an initial channel response from the correlation peak;
- (c) despreading the received communication signal with a spreading code to derive a stream of reference samples and a stream of data samples when the correlation peak is generated;
- (d) revising the initial channel response based on an estimated channel response derived from the stream of reference samples to form a modified channel response estimate; and
- (e) generating an estimated data symbol from the stream of data samples by utilizing the modified channel response estimate.

28. The method of claim 27 wherein the detecting operations of the despreading, revising, and generating steps are substantially similar to detecting operations utilized in communicating over a traffic communication channel of the communication system.

29. The method of claim 28 further comprising the step of storing the modified channel response estimate for subsequent use in detecting operations performed on the traffic communication channel.

30. The method of claim 27 wherein the despreading step comprises using a Walsh code as the spreading code to differentiate between at least two different subchannels of an access channel slot, each subchannel having reference coded access channel transmissions originating from different transmission sources.

31. The method of claim 30 wherein the despreading step comprises using two distinct 128 bit length Walsh codes as the spreading codes to differentiate between two subchannels of the access channel slot, the two 128 bit length Walsh codes being orthogonal to the remaining 63 other 64 bit length Walsh codes of a Hadamard matrix.

32. The method of claim 27 further comprising the step of receiving the communication signal over a communication channel.

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